

Date: Thursday, 6/15/2006 7:45:02 AM
 User: Linda Lacelle

Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services	Drawing Name	: WEARPLATE
Job Number	: 24199		
Estimate Number	: 10299		
P.O. Number	: N/A	Part Number	: D25775
This Issue	: 6/15/2006 S.O. No. : N/A	Drawing Number	: D2577 REV E
Prsht Rev.	: NC	Project Number	: N/A
First Issue	: 6/13/2006 Type : PURCHASED PARTS	Drawing Revision	: E
Previous Run	: 24878	Material	: N/A
Written By	: <u>See Journal Below</u>	Due Date	: 12/5/2005
Checked & Approved By	:	Qty:	50 Um: Each
Comment	: Est: F 02.09.24 Re-format KJ/RF		

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
---------	-----------------------	---------------

1.0	M1010S16GA	1010/1025/A21/6aA SHEET
-----	------------	-------------------------



Batch: M100473



Comment: Qty.: 0.9810 sf(s)/Unit Total : 49.0500 sf(s)
 1010/1025/A21/6aA SHEET

M 06 06 15

2.0	WATER JET	FLOW WATER JET
-----	-----------	----------------



Comment: FLOW WATER JET

M 06 06 19 2(50)

3.0	QC2	INSPECT PARTS AS THEY COME OFF MACHINE
-----	-----	--



Comment: INSPECT PARTS AS THEY COME OFF MACHINE

M 06 06 19 50

4.0	QC6	DIMENSIONAL CHECK
-----	-----	-------------------



Comment: DIMENSIONAL CHECK

Inspect dimensions per template D2577-5T1

Doc 06-20-91

5.0	SMALL FAB 1	SMALL & MEDIUM FAB RESOURCE 1
-----	-------------	-------------------------------



Comment: SMALL & MEDIUM FAB RESOURCE 1

Debur

M.F. 06-06-20

6.0	BRAKE NC	NC BRAKE
-----	----------	----------



Comment: NC BRAKE

1-Form on brake using DT8155 and DT8179 as per Dwg D2577
 2-Form joggle using DT8157 as per Dwg D2577
 3-Identify as D2577-5

SB 06/06/20 50

Date: Thursday, 6/15/2006 7:45:02 AM
User: Linda Lacelle

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: WEARPLATE

Job Number: 24199

Part Number: D25775

Job Number:



Seq. #:

Machine Or Operation:

Description :

7.0

QC5

INSPECT WORK TO CURRENT STEP



Job 06.06.21

Comment: INSPECT WORK TO CURRENT STEP

8.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat Grey Sandtex (Ref: 4.3.5.6) as per QSI 005 4.3

DL 06/06/21

(50)

9.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

FC 06 06 22

(49)

10.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: *FP 19*

FC 06 06 22

(49)

11.0

DC

DOCUMENT CONTROL



Comment: DOCUMENT CONTROL

Inspection Level 21

DD 06/06/22

(49)

Job Completion



W 06/06/22

Date: Tuesday, 6/13/2006 3:08:06 PM
 User: Linda Lacelle

Process Sheet

Customer :	CU-DAR001 Dart Helicopters Services	Drawing Name :	WEARPLATE
Job Number :	24199		
Estimate Number :	10299		
P.O. Number :		Part Number :	D25775
This Issue :	6/13/2006	S.O. No. :	
Prsht Rev. :	NC	Drawing Number :	D2577 REV E
First Issue :	1/1	Project Number :	N/A
Previous Run :	24878	Drawing Revision :	E
Written By :		Material :	
Checked & Approved By :		Due Date :	12/5/2005
Comment :	Est: F 02.09.24 Re-format KJ/RF		

Qty: 50 Um: Each

Additional Product

Job Number:



Seq. #: Machine Or Operation: Description :

1.0 PG PURCHASING



1010/1025 166A
 (M1010S166A)



Comment: PURCHASING

Batch: M100473

Issue P/O:

Email or Ship DXF file to vendor

Laser Cut per Dwg D2577 flat pattern D2577-5

Material release note required

M 06 06 15

2.0 D25775F Wearplate, Centre



Water Jet E
 Dry Row E
 Dry Row E



Comment: Qty: 1.0000 U(s)/Unit Total: 50.0000 U(s)

WEAR PLATE FWD

M 06 06 15 (50)

3.0 PACKAGING 1 PACKAGING RESOURCE #1

QC2



Inspect As per Template
 DT2577-ST1



Comment: PACKAGING RESOURCE #1

Receive & Inspect For Transit Damage

Ensure material release note is attached

M 06 06 15 (50)

4.0 QC8 DIMENSIONAL CHECK

QC8



Comment: DIMENSIONAL CHECK

Inspect dimensions per template D2577-ST1

5.0 SMALL FAB 1 SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1

Deburr



RELEASED
00 09 26 07

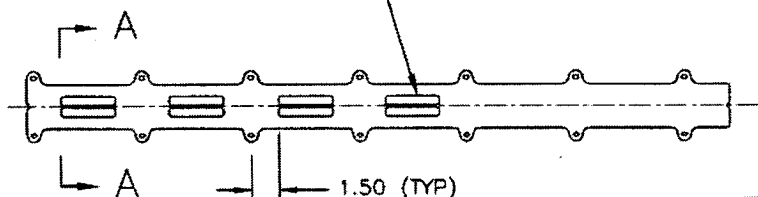
DESIGN	DRAWN BY	DART AEROSPACE LTD HAMKESBURY, ONTARIO, CANADA	REV. E
CHECKED	APPROVED	DRAWING NO. D2577	SHEET 1 OF 5
DATE 00.09.22	TITLE WEARSHOE	SCALE 1:10	
A	96.09.16	NEW ISSUE	
B	96.12.04	ADD HARDCOAT WELDS	
C	97.05.30	CHANGE HOLES TO OBOUNDS	
D	98.08.17	CORRECTED DIMENSIONS ON -1 & -3	
E	00.09.22	ADD D2577-101/-11/-13 INCORPORATE DE09176	

7560 HARDCOAT WELD
4.0 LONG
0.063 TO 0.125 HIGH
(TYP. 11 PLS.)
WELD AFTER BENDING AS
ILLUSTRATED PER DT8308

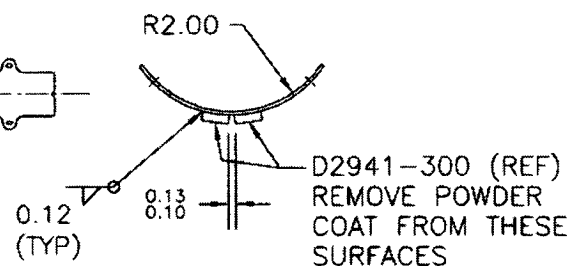


D2577-1 & D2577-3 WEARSHOE
MAKE FROM D2577-11 AND D2577-13 RESPECTIVELY
FINISH: POWDER COAT GREY (4.3.5.6) PER DART QSI 005 4.3
TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

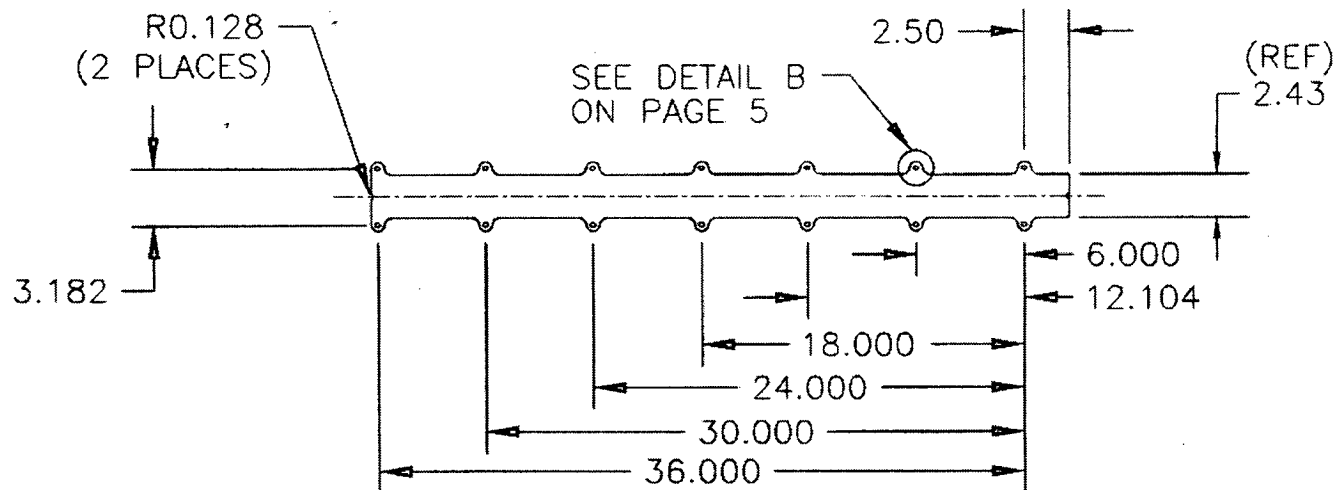
D2941-300
SHWAYDER WEAPADS
(8 PLACES)



SECTION A-A
SCALE 1:5



D2577-21 & D2577-23 WEARSHOE
MAKE FROM D2577-11 AND D2577-13 RESPECTIVELY
FINISH: POWDER COAT GREY (4.3.5.6) PER DART QSI 005 4.3
TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED



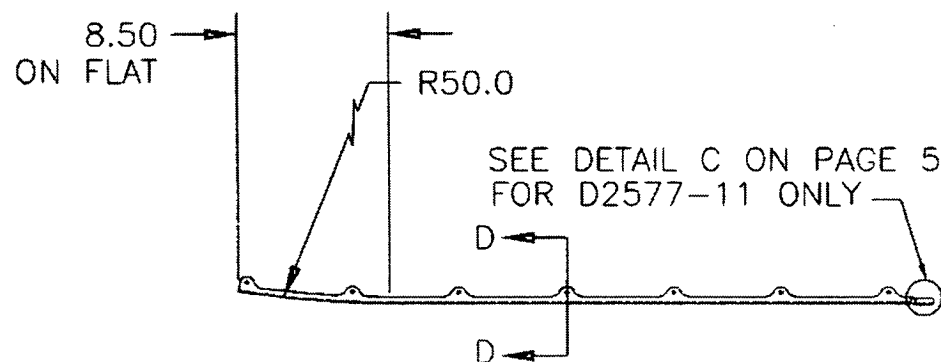
D2577-101 FLAT PATTERN

BREAK ALL SHARP CORNERS 0.010 TO 0.020

MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A569/A570

SERIES STEEL 0.063 THICK

TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED



D2577-11 & D2577-13 LONGITUDINAL BEND

MAKE FROM D2577-101

TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED



DESIGN		DRAWN BY		DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA
CHECKED		APPROVED		
DATE	00.09.22	TITLE	D2577	REV. E
			WEARSHOE	SHEET 2 OF 5
				SCALE 1:10

RELEASED
00 01 26 #10

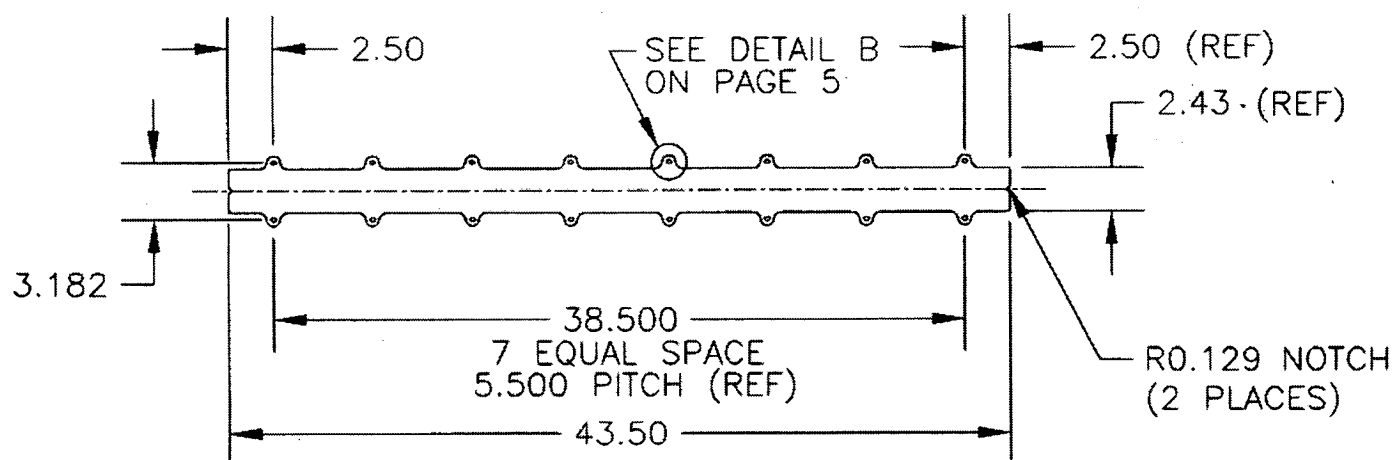
DART



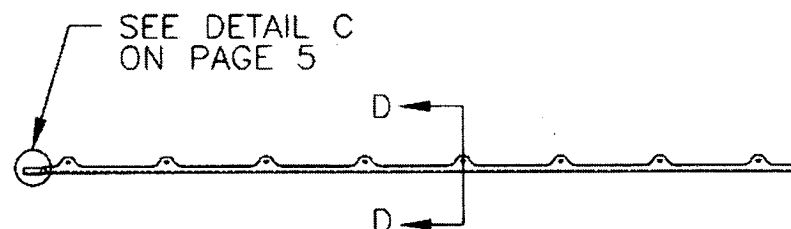
DESIGN	DRAWN BY	DART AEROSPACE LTD	REV. E
CHECKED	APPROVED	DRAWING NO. D2577	SHEET 3 OF 5
DATE 00.09.22		TITLE WEARSHOE	SCALE 1:10

RELEASED
00.09.22

D2577-5 FLAT PATTERN



D2577-5 LONGITUDINAL BEND



D2577-5 WEARSHOE

BREAK ALL SHARP CORNERS 0.010 TO 0.020

MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A569/A570

SERIES STEEL 0.063 THICK

FINISH: POWDER COAT GREY (4.3.5.6) PER DART QSI 005 4.3

TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

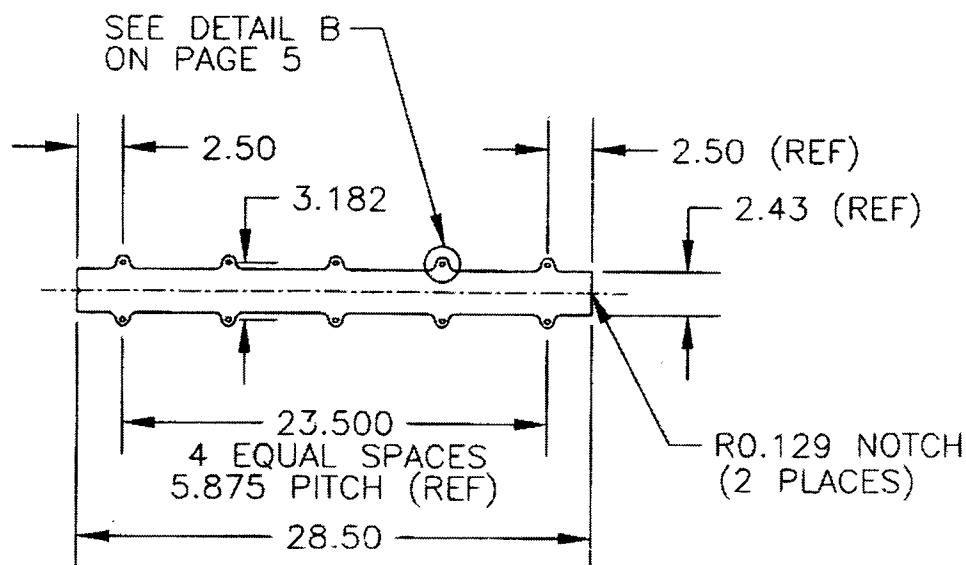
DART



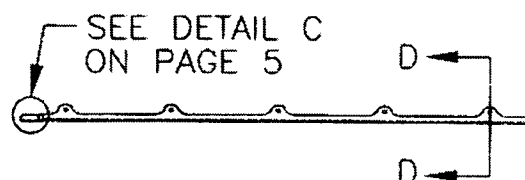
DESIGN		DRAWN BY		DART AEROSPACE LTD HAMKESBURY, ONTARIO, CANADA
CHECKED		APPROVED		DRAWING NO. D2577
DATE	00.09.22	TITLE	WEARSHOE	REV. E SHEET 4 OF 5
		SCALE	1:10	

RELEASED
00 07 26

D2577-7 FLAT PATTERN



D2577-7 LONGITUDINAL BEND



D2577-7 WEARSHOE

BREAK ALL SHARP CORNERS 0.010 TO 0.020

MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A569/A570

SERIES STEEL 0.063 THICK

FINISH: POWDER COAT GREY (4.3.5.6) PER DART QSI 005 4.3

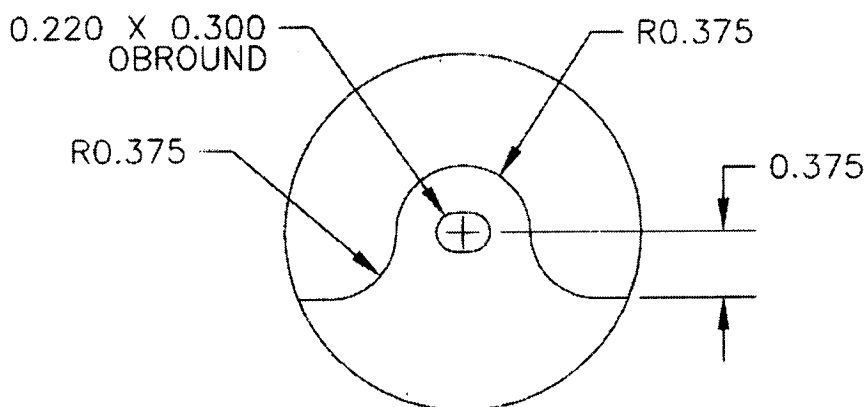
TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED



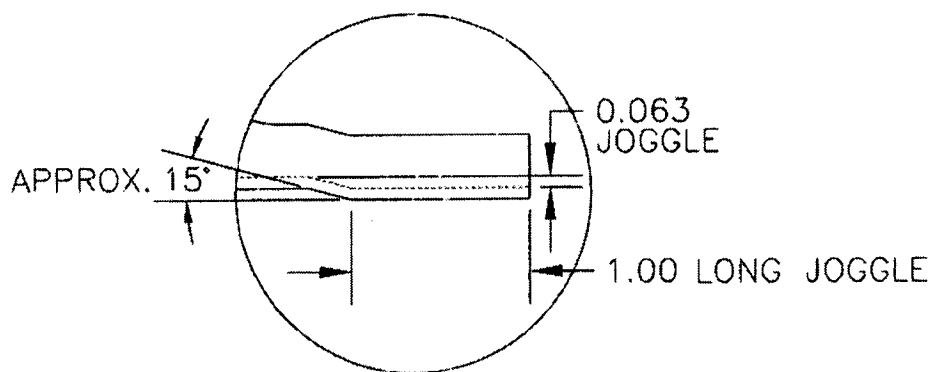
DESIGN <i>[Signature]</i>	DRAWN BY <i>CP</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D2577	REV. E SHEET 5 OF 5
DATE 00.09.22		TITLE WEARSHOE	SCALE 1:10

RELEASED
00.09.26

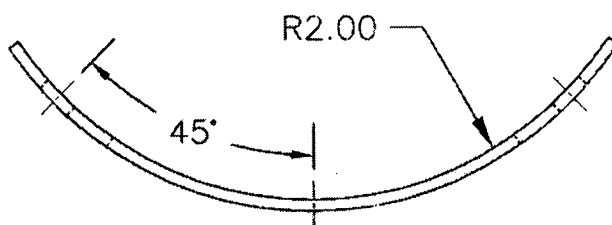
DETAIL B (SCALE 1:1)



DETAIL C (SCALE 1:1)



SECTION D-D (SCALE 1:1)



Copyright © 1996 by DART AEROSPACE LTD

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

5/38

DART AEROSPACE LTD	Work Order:	24199
Description: Wearplate	Part Number:	D2577-5
Dwg: D2577 Rev. E	Qty:	50
		Page 1 of 1

Step	Location	Procedure	By	Date	Qty
1	DC	Issue Traveller Dwg not required	OK	05.09.02	50
2	PG	Issue P/O: <u>2008589</u> Email or Ship DXF file to vendor Laser Cut per Dwg D2577 flat pattern D2577-5 Material release note required	LN	0509-06	50
3	RG	Receive and Inspect for transit damage Ensure that material release note is attached	CD	05/09/28	50
4	QC6	Inspect dimensions per template D2577-5T1	2	05.10.06	50
5	GB	Deburr if necessary		N/A	
6	GB	Form on brake using DT8155 and DT8179 as per Dwg D2577	SB	05/11/08	50
7	GB	Form joggle using DT8157 as per Dwg D2577 Identify as D2577-5	SB	05/11/08	50
8	QC5	Inspect work to Step 7	2	05-11-08	50
9	FP	Powder Coat Grey (Ref.4.3.5.6) per QSI 005 4.3	FC	05/11/09	50
10	QC3	Inspect Powder Coat	11	05/11/09	50
11	FP	Identify and Stock	11	05/11/09	50
12	AC	Cost / part <u>14.88</u>	54C	05-11-10	50
13	DC	Close W/O <u>15.23</u> Inspect Level 21	12	05/11/10	50

Rev	Date	Change	Revised By	Approved
A	96.08.20	New Issue		
B	98.04.15	Changed finish detail, changed forming sub-contractor	KB	
C	99.02.02	Added inspection levels, Jig numbers	DM	
D	99.03.25	Added Joggle	DM	
E	00.10.02	Rev.E dwg	EC	
F	02.09.24	Re-format	KJ RF	9

RELEASED
02/10/02 RF

Job Costing Report

Dart Aerospace Ltd.
Hawkesbury

Sep 02, 2005
09:01 am

Work Order No : 0024199
Project Name : D2577-5
Project For : WK538
Work Order Type : Main
Main WO Number :
House Part Number : D2577-5
Description : Wearplate, Centre
Manufactured : Yes
Amount Req'd : 50
Amount Done : 0
Start Date : 09-01-05
Est Finish Date : 09-22-05
Act Finish Date :
Drawings Req'd : No
Ok for Approval :
Approval Rec'd :

Department Code:
Burden Flags : NNNNNNNN
WO Status : Open
Invoice State : Not Invoiced
Invoice Date :
Invoice Number :
Invoice Amount : 0.00
Order Entry No :
OE Value : 0.00
Est Mark Up : 0.000%
Actual Mark Up : 0.000%
\$0 Posted to Finished Goods

	Estimated	Actual	Var. %	Posted	To Post
Material Cost :	0.00	0.00	0.00	0.00	0.00
Engineering Hours :	0.00	0.00	0.00		
Engineering Cost :	0.00	0.00	0.00	0.00	0.00
Production Hours :	0.00	0.00	0.00		
Production Cost :	0.00	0.00	0.00	0.00	0.00
Packaging Hours :	0.00	0.00	0.00		
Packaging Cost :	0.00	0.00	0.00	0.00	0.00
OverHead Hours :	0.00	0.00	0.00		
OverHead Cost :	0.00	0.00	0.00	0.00	0.00
CNC Hours :	0.00	0.00	0.00		
CNC :	0.00	0.00	0.00	0.00	0.00
Misc. Hours :	0.00	0.00	0.00		
Misc. :	0.00	0.00	0.00	0.00	0.00
Burden :	0.00	0.00	0.00		
Total Cost :	0.00	0.00	0.00		
Mark up :	0.000	0.000			
Selling Cost :	0.00	0.00			

	Estimated	Actual
Labour Hrs/Amount Done :	0.00	0.00
Profits/(Loss) :	0.00	0.00



New Zealand Steel Limited
Glenbrook, South Auckland
Postal: Private Bag 92121, Auckland, New Zealand
Telephones: (09) 375 8989 / 375 8111 Auckland
(09) 235 8069 / 235 3535 Waiuku
Fax: (09) 375 8959

TEST CERTIFICATE

Ref: 5078/21768

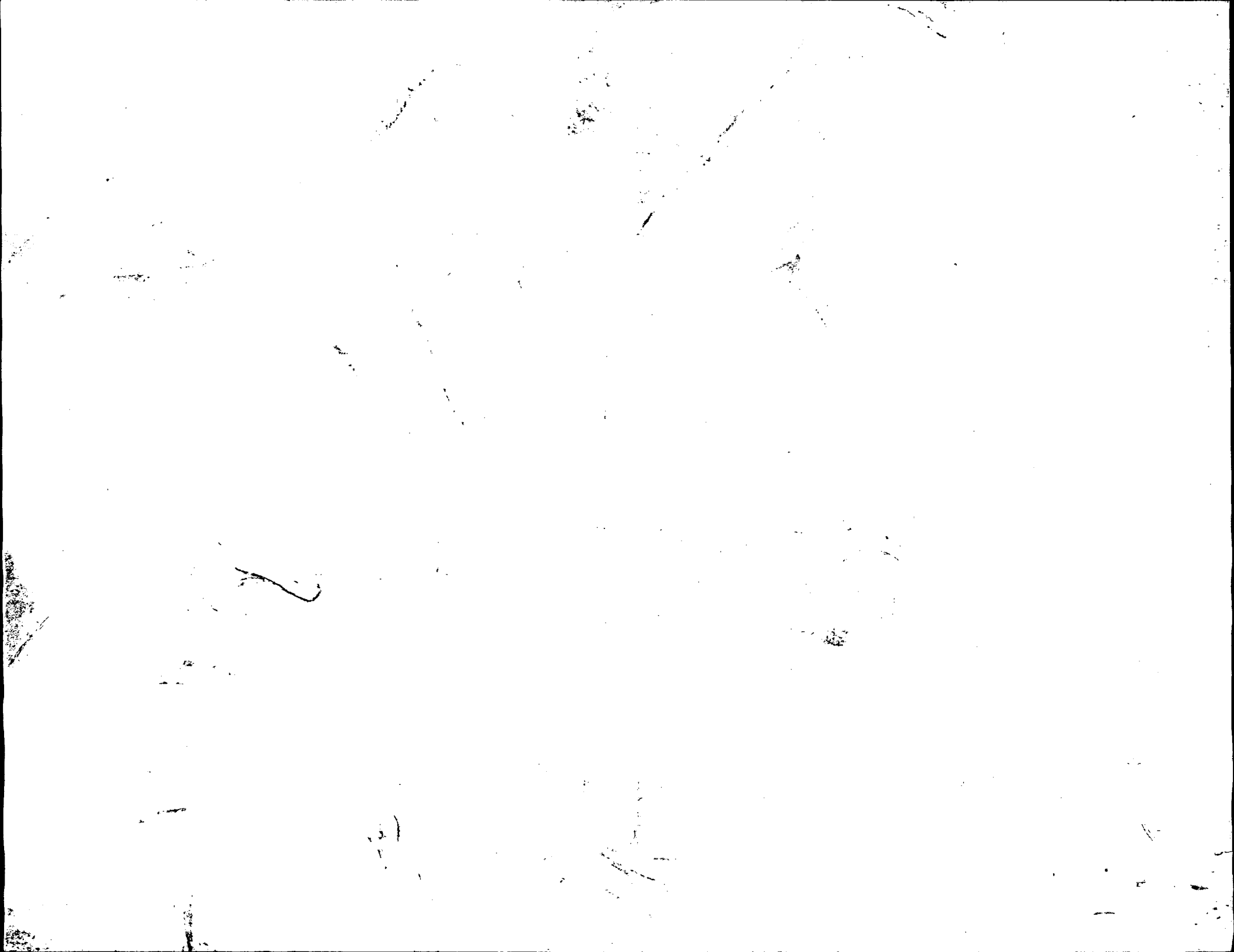
CUSTOMER		Wilkinson		SPECIFICATION		ASTM A1008 CS Type A		CERTIFICATE No		TC109561														
CUSTOMER O/N		90-21N-540		PRODUCT		CRA WIDE COIL		PAGE		1 of 1														
MILL O/N		471159		DIMENSIONS		0.055" x 48" x Coil		DATE		23 April 2005														
PACK NUMBER	HEAT No	CHEMICAL COMPOSITION PERCENT														MECHANICAL TESTS (TEST SPECIFICATION - ASTM A370)								
		C	Si	Mn	P	S	Cu	Ni	Cr	Mo	V	Nb	Ti	Al	B	N2	CE	BEND	YIELD	T.S.	%ELONG G.L.=	HARDNESS HRB	r ()	LENGTH (feet)
		x100															x10000	x100						
R9-457097-00	640590	4	TR	20	13	17	12	17	20	1	8	1	1						180°					
R9-457098-00	640590	4	TR	20	13	17	12	17	20	1	8	1	1						Good				46	1562
R9-457099-00	640590	4	TR	20	13	17	12	17	20	1	8	1	1						Good				46	1483
R9-457100-00	640590	4	TR	20	13	17	12	17	20	1	8	1	1						Good				46	1562
R9-457101-00	640590	4	TR	20	13	17	12	17	20	1	8	1	1						Good				46	1496
R9-457102-00	640590	4	TR	20	13	17	12	17	20	1	8	1	1						Good				47	1562
																							47	1555

YIELD		GAUGE LENGTH (G.L.)		PLASTIC STRAIN RATIO (r)		IMPACT TEST		CARBON EQUIVALENT VALUE (CE)	
(A)=0.2% PROOF STRESS	(B)=LOWER YIELD STRESS	(A)=200mm	(C)=80mm	(E)=2"	(A)=r0	(C)=r45	(A)=10mm x 10mm	(B)=7.5mm x 10mm	(A)=C+Mn/6
		(B)=50mm	(D)=5.65 / Su	(F)=8"	(B)=r90	(D)=(r0+r90+2r45) / 4			(B)=C+Mn/6+(Cr+V+Mo)/5+(Cu+Ni)/15
									(C)=C+Mn/6+Si/24
									(D)=

WE HEREBY CERTIFY THAT THE MATERIAL DESCRIBED HEREIN HAS BEEN TESTED AND INSPECTED WITH SATISFACTORY RESULTS IN ACCORDANCE WITH THE REQUIREMENTS OF THE ABOVE SPECIFICATION

APPROVED *Satish Misra*
QC METALLURGIST

16 ga crms



Job Costing Report

Dart Aerospace Ltd.
Hawkesbury

Nov 08, 2005
11:10 am

Work Order No	: 0024199	Department Code:	
Project Name	: D2577-5	Burden Flags	: NNNNNNN
Project For	: WK538	WO Status	: Open
Work Order Type	: Main	Invoice State	: Not Invoiced
Main WO Number	:	Invoice Date	:
House Part Number	: D2577-5	Invoice Number	:
Description	: Wearplate, Centre	Invoice Amount	: 0.00
Manufactured	: Yes		
Amount Req'd	: 50	Order Entry No	:
Amount Done	: 0	OE Value	: 0.00
Start Date	: 09-01-05		
Est Finish Date	: 09-22-05	Est Margin	: 0.000%
Act Finish Date	:	Actual Margin	: 0.000%
Drawings Req'd	: No		
Ok for Approval	:		
Approval Rec'd	:	\$0 Posted to Finished Goods	

	Estimated	Actual	Var. %	Posted	To Post
Material Cost	: 0.00	676.50	100.00	0.00	676.50
Engineering Hours	: 0.00	0.00	0.00		
Engineering Cost	: 0.00	0.00	0.00	0.00	0.00
Production Hours	: 0.00	0.00	0.00		
Production Cost	: 0.00	0.00	0.00	0.00	0.00
Packaging Hours	: 0.00	0.00	0.00		
Packaging Cost	: 0.00	0.00	0.00	0.00	0.00
OverHead Hours	: 0.00	0.00	0.00		
OverHead Cost	: 0.00	0.00	0.00	0.00	0.00
CNC Hours	: 0.00	0.00	0.00		
CNC	: 0.00	0.00	0.00	0.00	0.00
Misc. Hours	: 0.00	0.00	0.00		
Misc.	: 0.00	0.00	0.00	0.00	0.00
Burden	: 0.00	0.00	0.00		
Total Cost	: 0.00	676.50	100.00		
Margin	: 0.000	0.000			
Selling Cost	: 0.00	676.50			

	Estimated	Actual
Labour Hrs/Amount Done	: 0.00	0.00
Profits/(Loss)	: 0.00	(-676.50)